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MTDC

MTDC Overview

Massachusetts has a long tradition of leadership in the application of technology to solve basic problems and advance the commercial success of new enterprises. In part, this history has been a result of the Commonwealth's need to provide premium-priced products for export to other parts of the nation and the world to offset the high cost of importing the basic resources of food and energy. The tradition has long been institutionalized through the large number of public and private universities, the strong system of public schools and the financial institutions that have supported these activities.

The fundamental prerequisites of a strong technology-based economy are technological talent, entrepreneurial leadership, and financial resources that encourage research and development and patiently nurture new industries. The Commonwealth has taken a leadership role over the years in providing support for these basic needs. This leadership role began in the 17th century when the Commonwealth provided financial support to help build Harvard University. It continued in the 19th century when MIT was founded with significant financial assistance from the State. In the 20th century, the Commonwealth has expanded its commitment to the future through innovative programs like MTDC.

MTDC History

In 1978 a law was enacted creating the Massachusetts Technology Development Corporation. MTDC was established to address the "capital gap" for start-up and expansion of early-stage technology companies.

From 1980 through 1985, MTDC had made investments totaling over \$7.3 million among 33 companies. As MTDC entered the 90s, its total cumulative investments grew to over \$14.7 million among 50 companies.

Furthermore, the Corporation became actively self-supporting based upon returns from previous investments.

In 1986 MTDC began investing \$2 million of the Massachusetts Pension Reserves Investment Trust (PRIT) under a management agreement with the Pension Reserves Investment Management Board (PRIM). These funds are invested at later-stage rounds of financing where there are opportunities for substantial capital gains to benefit PRIT.

MTDC Objectives

Through each phase of its existence, MTDC has pursued the following four basic objectives:

- to help create primary employment in technology-based industries in Massachusetts;
- to attract and leverage private investment in Massachusetts companies;
- to foster the application of technological innovations where Massachusetts companies are, or can be, leaders;
- to nurture entrepreneurship among Massachusetts citizens, planting the seeds for long-term economic development in the State.

MTDC Programs

While MTDC's Investment Program has been its most visible activity, the Management Assistance Program has been quietly helping entrepreneurs to launch or expand their businesses. Through this Program, MTDC's staff reviews initial business plans, provides counsel as to the most feasible ways of raising necessary capital from private and/or public sources, and assists companies in locating these alternative sources of funding.



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<http://archive.org/details/annualrep1990mass>

Report of the Chairman and President

The Massachusetts Technology Development Corporation moved into its second decade of operations at the start of fiscal year 1990. As the Corporation passed this milestone, the year was marked by the emergence of both unusual challenges and opportunities.

The most formidable challenge for early-stage firms is access to investment capital. As the banking and investment environment worsened over the course of 1990, emerging businesses found it difficult to secure start-up or expansion capital. While U.S. total venture capital funds had grown to over \$30 billion by the end of the 1980s, companies seeking less than \$1 million of initial investment had fallen below the threshold for most venture capital firms. Given the uncertainty about the economy, there does not seem to be any near-term improvement in the availability of investment capital.

On the other hand, there are exciting opportunities to invest in start-up and early expansion companies which have the potential of becoming leaders in their respective markets. The launching of these companies during an economic downturn usually proves advantageous. Investment dollars tend to go farther and recruiting talented staff is less difficult. Furthermore, if these companies are able to develop their products and early sales channels successfully, when the economic cycle turns upward, they will be better able to take maximum advantage of growth opportunities.

With respect to opportunities, the MTDC portfolio companies have already begun to engage in foreign trade at a very brisk rate, which is noteworthy given their relatively small size. This foreign trade has the potential to grow significantly with the newly emerging European marketplace. This is especially true for firms whose products help to build the information and communications infrastructure for this enormous market.

With this background, we would like to highlight a few topics.

Funds Committed

MTDC committed a total of \$1,835,000, of which \$945,000 were to four companies which would be new to the MTDC portfolio and \$890,000 were to follow-on investments in eight portfolio companies. By year end, approximately \$1,090,000 of these commitments had been closed or were pending for closing. In addition, approximately \$178,000 of investments approved in FY89 were closed by the end of FY90. Unfortunately, two of the commitments to new companies lapsed since the firms were unable to attract private co-investors because of the poor financial marketplace.

Finally, MTDC had committed \$250,000 of PRIT funds during the year, of which \$200,000 had closed by year end.

Exit Strategy and Financial Returns

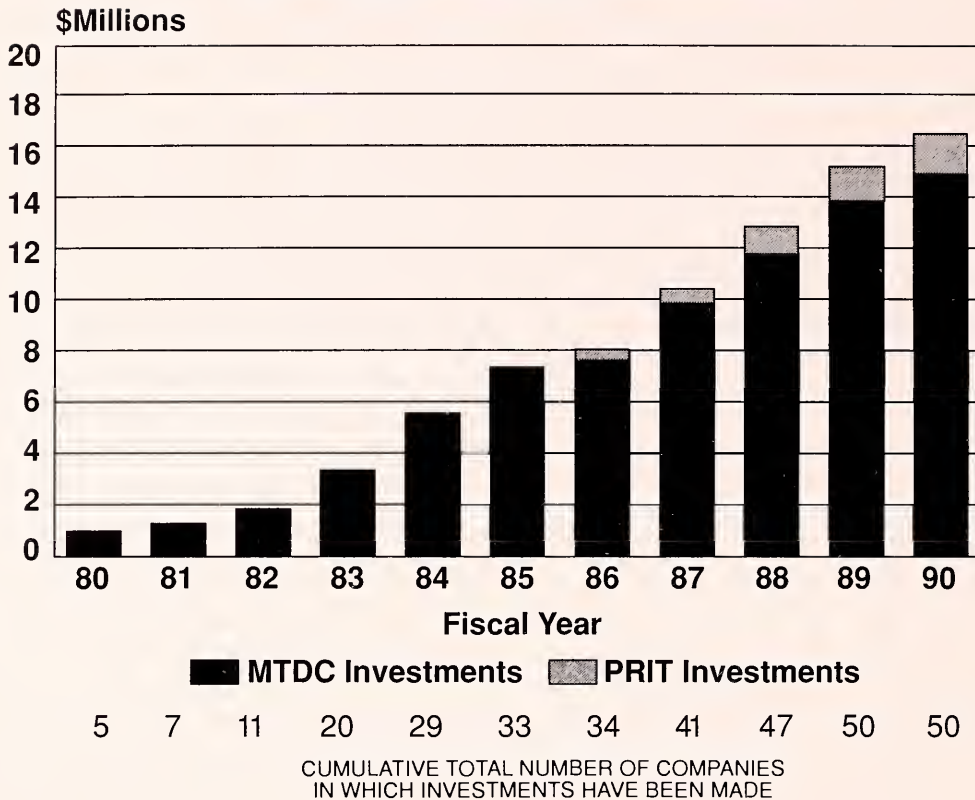
As of June 30, 1990, MTDC had exited twenty-four of the fifty companies in which it had invested. Eight companies had made successful initial public offerings of their securities, nine had been acquired by other firms and two bought back their securities from MTDC. Finally, five companies had ceased operations.

MTDC realized gains in fiscal 1990 of \$610,311 on equity investments. Realized losses totaled \$674,998. The cumulative gains on equity investments since 1980 total \$6,301,365, while cumulative losses on both debt and equity investments total \$2,241,585, for total net gains of \$4,059,780.

Investment Capital

While MTDC's initial investment capital came from federal and state grants, it has used a portion of gains as the primary source

Total Cumulative Investments



of additional capital for current and future investments. The following summarizes these investment capital sources as of June 30, 1990:

Economic Development	
Administration of the	
U.S. Department of	
Commerce	\$ 2,972,000
Commonwealth of	
Massachusetts	5,200,000
Gains from Previous	
MTDC Investments	4,505,201
TOTAL	\$12,677,201

In terms of future investment capital, MTDC has been working on a legislative initiative that would enable the Corporation to attract non-governmental co-investors to the types of early-stage companies in which it has traditionally invested.

Economic Benefits

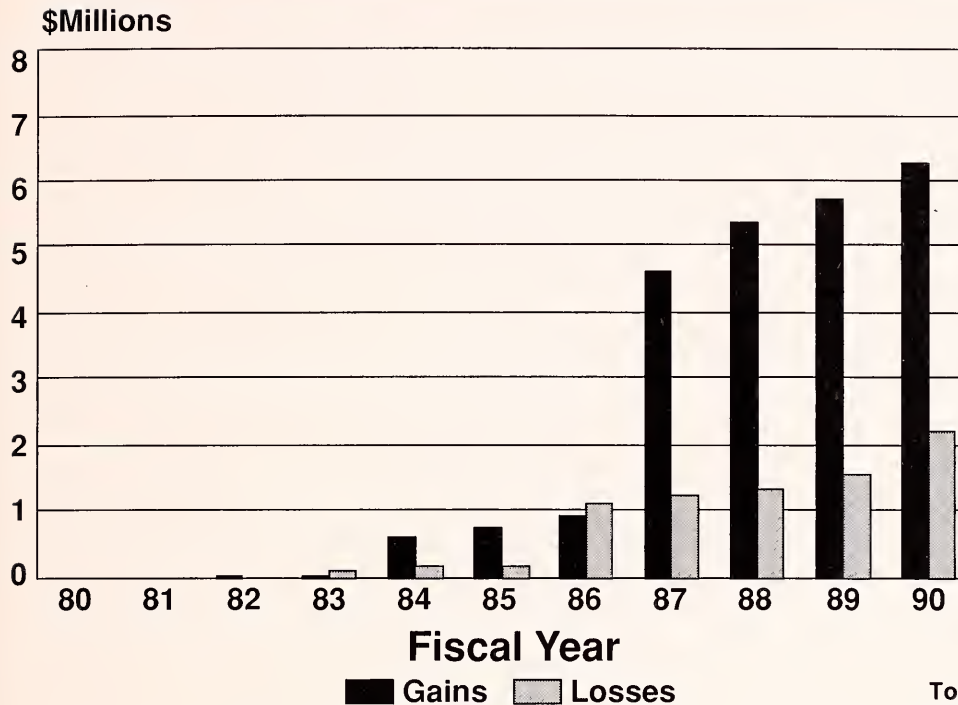
The principal objective of the MTDC Investment Program has been to assist early-

stage technology companies to start or expand in Massachusetts. Despite the over \$30 billion of assets under venture capital management in the United States today, scientists, engineers and other first-time technology-oriented entrepreneurs find it difficult to start new businesses or expand existing ones.

Usually these entrepreneurs are seeking less than \$1 million in venture capital to launch their enterprises. Furthermore, these companies tend to project growth to \$20-30 million in sales within five or six years. Although the size of these investment opportunities has been too small to attract most venture capital firms, these early-stage companies provide significant employment opportunities and long-term value to the Massachusetts economy.

To illustrate, as of December 31, 1989, the 41 active companies in which MTDC had invested employed more than 4,400 people.

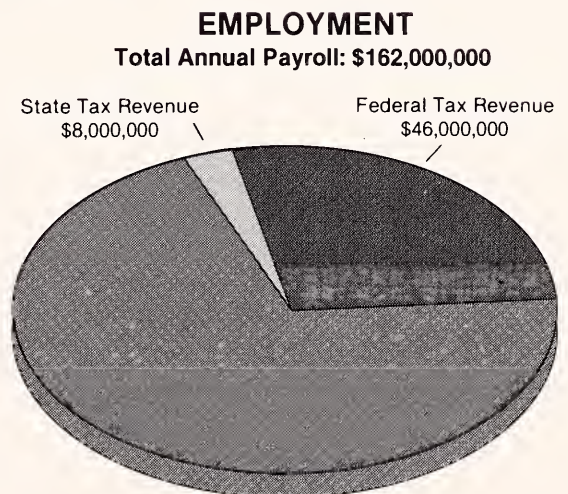
Cumulative Realized Gains and Losses



This employment generated a reported annual payroll of over \$162 million, federal tax revenue of over \$46 million and state tax revenue of over \$8 million. In addition, these companies annually purchased an estimated \$70 million plus of goods and services, many of which were obtained from other Massachusetts companies.

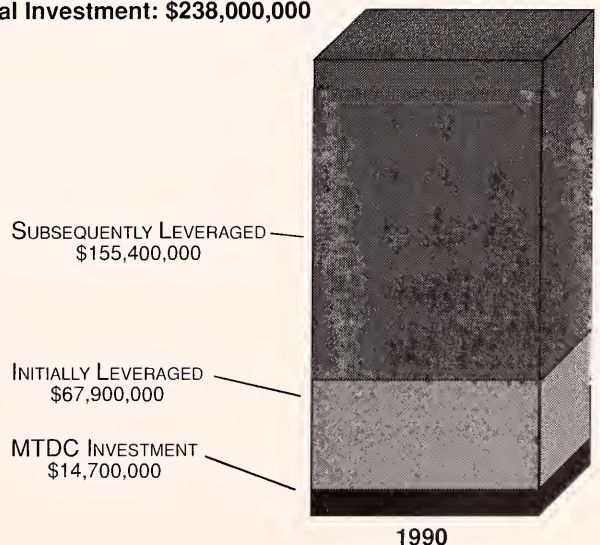
More importantly, however, these companies are export oriented. Most are selling products outside the Commonwealth, both nationally and internationally, and the rest have innovative products ready for introduction to global markets. In fact, during much of 1990, while other Massachusetts firms have been experiencing flat or declining sales, these companies have been growing because of their export orientation.

Another economic benefit has been the significant amount of private co-investment that MTDC's Investment Program has leveraged in the portfolio companies. Through June 30, 1990, MTDC's cumulative investment of over \$14.7 million leveraged an estimated \$67.9 million at the time of initial investment. Subsequently, these companies raised an estimated additional \$155.4 million.



INVESTMENT DOLLARS

Total Investment: \$238,000,000



Worldwide Demand for Applications of Technology

Massachusetts has had an enviable track record over the last 50 years in addressing broad market demands for technology products. For example, in response to the demand for products and services for U.S. aerospace defense needs beginning in the late 1940s, Massachusetts firms were launched and expanded. Subsequently, Massachusetts technology-based companies have grown to address other demands in such areas as:

- scientific and engineering computing
- office automation
- healthcare
- industrial automation
- environmental management

Every indication is that these broad market demands are continuing to intensify as we end the 20th century. While there are many other regions of the country and world that now offer technology-based products, Massachusetts continues to hold a leading position. However, it will take steady commitment and sustained investment in these types of technology enterprises to be competitive in the future.

SBIR Program and Technology Transfer

In addition to its venture capital role, MTDC has worked very closely with companies which have applied for and have been successful winners of grants under the federal Small Business Innovation Research (SBIR) Program. This program has provided over \$40 million annually to small Massachusetts firms to finance feasibility studies and prototype development of new products. MTDC has made contingent

investment commitments to several of these firms that have demonstrated the potential to effectively commercialize these products.

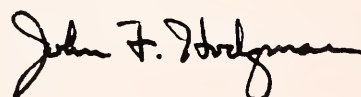
Another more recent role for MTDC has been the Massachusetts Technology Transfer Initiative designed to introduce Massachusetts technology firms to the resources of the Department of Defense and other federal laboratories. Under the Federal Technology Transfer Act of 1986, the technologies available in these laboratories are now open for license and/or cooperative research and development agreements with private businesses. In May 1990 MTDC co-sponsored a briefing for more than 150 companies regarding this initiative and plans are underway for a similar program in 1991.

MTDC Board of Directors

Since the close of the fiscal year, Howard Smith has resigned as Chairman, having served in this capacity since 1983. We are pleased to report that the Governor has appointed Dr. David Wormley as the new Chairman of the Board. Professor Wormley is Head of the Mechanical Engineering Department at MIT. He has been a member of the MTDC Board since 1985 and has served as Secretary of the Corporation. We would also like to acknowledge the dedicated public service of Ron E. Payne, Corporate Purchasing Vice President of Digital Equipment Corporation, who completed his MTDC Board term during fiscal year 1990.



Howard N. Smith
Chairman



John F. Hodgman
President

INDEPENDENT AUDITORS' REPORT

**Deloitte &
Touche**



Massachusetts Technology Development Corporation:

We have audited the accompanying balance sheets of Massachusetts Technology Development Corporation as of June 30, 1990 and 1989 and the related statements of revenues, expenditures and changes in fund balances and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Massachusetts Technology Development Corporation as of June 30, 1990 and 1989 and its revenues, expenditures, and changes in fund balances and its cash flows for the years then ended, in conformity with generally accepted accounting principles.

Deloitte & Touche

Boston, Massachusetts
July 27, 1990

Financial Statements

Balance Sheets, June 30, 1990 and 1989

ASSETS	Notes	1990	1989
GENERAL SUPPORT:			
Cash, cash equivalents and short-term investments	2, 4	\$ 181,061	\$ 277,361
Interest receivable		38,731	72,869
Management fee receivable			15,000
Prepaid expenses and deposits		9,739	9,999
Leasehold improvements and office equipment – at cost less accumulated depreciation and amortization of \$88,948 in 1990 and \$68,102 in 1989	2	41,728	53,655
Restricted cash, cash equivalents and short-term investments	2, 4, 6	858,437	858,437
Total general support		1,129,696	1,287,321
RESTRICTED FOR INVESTMENT PROGRAMS:			
Cash, cash equivalents and short-term investments	2, 4	2,644,931	2,421,258
Investments	2, 3	7,790,685	8,189,356
Total restricted		10,435,616	10,610,614
TOTAL ASSETS		\$11,565,312	\$11,897,935

LIABILITIES AND FUND BALANCES

GENERAL SUPPORT:			
Accrued liabilities		\$ 83,486	\$ 72,400
Fund balance		1,046,210	1,214,921
Total general support		1,129,696	1,287,321
RESTRICTED FOR INVESTMENT PROGRAMS –			
Fund balance	3	10,435,616	10,610,614
TOTAL LIABILITIES AND FUND BALANCES		\$11,565,312	\$11,897,935

See notes to financial statements.

**Statements of Revenues, Expenditures, and Changes in Fund Balances
for the Years Ended June 30, 1990 and 1989**

		1990		1989	
	Notes	General Support	Restricted Funds	General Support	Restricted Funds
REVENUES:					
Gains on equity investment	2	\$ 610,311		\$ 338,136	
Interest earned	2	467,824		548,633	
Dividend income		20,261		11,706	
Management fee income	9	60,000		60,000	
Miscellaneous		15,826		1,525	
Total revenues		1,174,222		960,000	
EXPENDITURES —					
General support	5	842,933		805,921	
RECOGNIZED LOSSES					
ON INVESTMENTS			\$ (674,998)		\$ (298,000)
EXCESS (DEFICIENCY) OF					
REVENUES OVER					
EXPENDITURES		331,289	(674,998)	154,079	(298,000)
INTERFUND TRANSFER	6	(500,000)	500,000	(300,000)	300,000
FUND BALANCES,					
BEGINNING OF YEAR		1,214,921	10,610,614	1,360,842	10,608,614
FUND BALANCES,					
END OF YEAR		\$1,046,210	\$10,435,616	\$1,214,921	\$10,610,614

See notes to financial statements.

Financial Statements

Statements of Cash Flows for the Years Ended June 30, 1990 and 1989

	1990			1989		
	General Unrestricted	Support Restricted	Restricted For Investment Programs	General Unrestricted	Support Restricted	Restricted For Investment Programs
CASH FLOWS FROM GENERAL SUPPORT ACTIVITIES:						
Excess of revenues over expenditures	\$ 331,289			\$ 154,079		
Adjustments to reconcile excess of revenues over expenditures to net cash provided by general support activities:						
Gains on sales of investments	(610,311)			(338,136)		
Depreciation	20,846			20,814		
Increase (decrease) in cash from:						
Interest receivable	34,138			2,004		
Management fee receivable	15,000			(15,000)		
Other receivables				58,300		
Prepaid expenses and deposits	260			425		
Accrued liabilities	11,086			4,040		
Total adjustments	(528,981)			(267,553)		
Net cash (used for) General Support activities	(197,692)			(113,474)		
CASH FLOWS FROM (USED FOR) NONCAPITAL FINANCING ACTIVITY —						
Interfund transfer	(500,000)		\$ 500,000	(400,000)	\$ 100,000	\$ 300,000
CASH FLOWS FROM (USED FOR) CAPITAL ACTIVITY —						
Expenditures for office equipment	(8,919)		- 0 -	(29,049)	- 0 -	- 0 -
CASH FLOWS FROM RESTRICTED FOR INVESTMENT PROGRAMS ACTIVITIES:						
Purchases of investments			(822,651)			(1,907,396)
Proceeds from the sale of investments:						
Gains	610,311			338,136		
Costs recovered			229,154			193,726
Principal repayments			317,170			211,556
Net cash provided by (used for) Restricted for Investment Programs activities	610,311		(276,327)	338,136		(1,502,114)
NET INCREASE (DECREASE) IN CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	(96,300)		223,673	(204,387)	100,000	(1,202,114)
BEGINNING CASH, CASH EQUIVALENTS AND SHORT- TERM INVESTMENTS	277,361	\$ 858,437	2,421,258	481,748	758,437	3,623,372
ENDING CASH, CASH EQUIVALENTS AND SHORT- TERM INVESTMENTS	\$ 181,061	\$ 858,437	\$2,644,931	\$ 277,361	\$ 858,437	\$2,421,258

See notes to financial statements.

Notes to Financial Statements

1. Organization and Operations

Massachusetts Technology Development Corporation was created as a body politic and instrumentality of the Commonwealth of Massachusetts on October 19, 1978 pursuant to Chapter 497 of the Acts of 1978. The purpose of the Corporation is to provide financial and other assistance to innovative enterprises in Massachusetts that have the potential to expand and generate new jobs and tax revenues. The Corporation is governed by a Board of Directors consisting of eleven members, eight of whom are appointed by the Governor from the private sector and three of whom are public officials.

The Corporation is successor to the Massachusetts Science and Technology Foundation (which was simultaneously dissolved) and assumed all rights, assets and liabilities of the Foundation. Through the fiscal year ended June 30, 1988, appropriations from the Commonwealth were a significant source of funding for both the Corporation and its predecessor. In 1988, the Corporation and the Commonwealth settled a long-standing obligation to repay the Commonwealth for funds appropriated since inception. Since 1988, the Corporation has become self-supporting from earnings and gains on past investments.

2. Summary of Significant Accounting Policies

Statement of Cash Flows

In 1990, the Corporation adopted the provisions of Governmental Accounting Standards No. 9, "Statement of Cash Flows." The Corporation considers all highly liquid investments, purchased with a remaining maturity of three months or less, to be cash equivalents.

Short-Term Investments

Short-term investments are those with maturities in excess of three months and are valued at cost, which approximates market. The Corporation has approximately \$1,234,000 and \$1,716,000 in short-term investments as of June 30, 1990 and 1989, respectively.

Property and Equipment

Property and equipment are stated at cost and are being depreciated on a straight-line basis over estimated useful lives ranging from three to ten years. Depreciation expense for the years ended June 30, 1990 and 1989 approximated \$20,800 in each year.

Investments

The Corporation's investment securities are purchased in the name of the Corporation and are maintained in a vault at a financial institution. These investments are generally in early-stage technology companies.

Investments, consisting of notes receivable and investments in capital stock (Note 3), are generally not readily marketable and are recorded at cost. In the opinion of management, the aggregate market value of investments was in excess of cost at June 30, 1990 and 1989. Upon the occurrence of a specific event which creates a decline in value which is determined to be other than temporary, the investment is written down and an investment loss is recognized. Interest earned is credited to the Corporation's General Support Fund. Gains on investments are credited to the Corporation's General Support Fund when realized and losses are charged against Restricted Fund Balances. Repayments of principal and proceeds from the sale of equity investments (to the extent of the cost basis) remain in funds restricted for investment programs. During the years ended June 30, 1990 and 1989, the Corporation realized gains on the sale of investments totaling \$610,311 and \$338,136, respectively. For the years ended June 30, 1990 and 1989, the Corporation charged \$674,998 and \$298,000, respectively, against restricted funds as losses on investments.

Notes to Financial Statements

Income Taxes

The Corporation, as an instrumentality of the Commonwealth, is not required to pay federal or state income taxes.

3. Investment Programs

Sources of Funds

The Corporation's original investment funds were provided in 1979 by a \$2,000,000 grant (including \$28,000 in start-up costs) from the Economic Development Administration (EDA), U.S. Department of Commerce. Under this grant, the Corporation makes loans from a revolving loan fund to eligible borrowers, defined as Massachusetts-based businesses with operations involving a significant amount of technology, which are located in EDA Title IV redevelopment areas and which meet the requirements of the Corporation's enabling act.

During the year ended June 30, 1981, the Corporation was awarded a \$1,000,000 grant under the Corporations for Innovation Development (CID) program of the U.S. Department of Commerce. The grant award is for the purpose of establishing a second revolving loan fund to assist in the creation and development of small, innovative high-technology companies in Massachusetts. In addition, the Commonwealth of Massachusetts appropriated \$1,000,000 to the Corporation as matching funds for the federal grant. The Commonwealth appropriation is restricted to equity investments.

Each year from fiscal years 1982 to 1988, the Commonwealth of Massachusetts appropriated additional amounts to augment the Corporation's investment fund. Since fiscal year 1988, no such appropriations were made. At June 30, 1989, the cumulative amount of appropriations totaled \$4,200,000.

Under the terms of the grants of investment funds from the Federal Government and the Commonwealth, principal repayments and costs recovered are returned to the Restricted for Investment Programs Fund to be reinvested in accordance with the criteria required by the grants' provisions and the Corporation's enabling legislation and policies. In addition, the Board of Directors of the Corporation has transferred approximately \$4,505,000 cumulatively through fiscal year 1990 to the Restricted for Investment Programs Fund to be reinvested in accordance with the criteria required by the Corporation's enabling legislation and policies. The transferred funds were derived from earnings and gains realized on past investments by the Corporation.

The total funds, since inception of the Corporation, which have been made available for investments are as follows:

Economic Development Administration of the	
U.S. Department of Commerce	\$ 2,972,000
Commonwealth of Massachusetts	5,200,000
Gains on sales of equity securities allocated to	
General Support Fund	\$6,301,365
Portion of gains used for General Support	
activities	<u>(1,796,164)</u>
Transfers to the Restricted for Investment	
Programs Fund	<u>4,505,201</u>
Total funds made available for investments	12,677,201
Losses on investments	<u>(2,241,585)</u>
Restricted for Investment Programs Fund	
Balance	<u>\$10,435,616</u>

Investments

During the years ended June 30, 1990 and 1989, the Corporation made loans and equity investments in aggregate amounts of \$822,651 and \$1,907,396, respectively. The terms of certain notes include an equity participation feature such as rights to convert to stock at a predetermined price or warrants to purchase common stock, in addition to interest due monthly at rates varying from 7% to 13% per year. Repayment of principal is generally due either on demand or in monthly installments ranging from thirty-six to sixty months, commencing six months to five years from the date of the loan. Such principal payments, however, are generally subordinated to the payment of senior debt of the borrowers.

A summary of investment activity is as follows:

	Notes Receivable	Equity Investments	Total
Investments made:			
1980 through 1988	\$ 6,573,399	\$ 5,372,054	\$11,945,453
1989	969,500	937,896	1,907,396
1990	647,600	175,051	822,651
Total investments	8,190,499	6,485,001	14,675,500
Conversions of loan principal to equity	(1,477,424)	1,477,424	
Less loan principal repayments and equity investment costs recovered	(3,306,797)	(1,336,433)	(4,643,230)
Gains on sales of equity securities 1982 through 1990		6,301,365	6,301,365
Allocation of gains to General Support Fund		(6,301,365)	(6,301,365)
Losses on investments:			
1983 through 1988	(684,665)	(583,922)	(1,268,587)
1989	(143,000)	(155,000)	(298,000)
1990	(250,000)	(424,998)	(674,998)
Total losses	(1,077,665)	(1,163,920)	(2,241,585)
Investment balance, June 30, 1990	\$ 2,328,613	\$ 5,462,072	\$ 7,790,685

As of June 30, 1990 and 1989, there were outstanding commitments for loans and capital investments totaling \$445,000 and \$275,000, respectively. In addition, the Corporation had guaranteed bank loans totaling \$30,000 as of June 30, 1990.

4. Cash, Cash Equivalents and Short-Term Investments

The Corporation maintains operating cash accounts and other short-term investment securities, primarily certificates of deposit, to fund operations and to provide appropriate reserves for the Corporation's investment programs. The cash accounts and other short-term investment securities are allocated to the Corporation's General Support Fund and the Restricted for Investment Programs Fund.

At June 30, 1990, the carrying amount of all of the Corporation's cash, cash equivalents and short-term investments was \$3,684,429, and the balances in financial institutions totaled \$3,696,895. Of the balances with the

Notes to Financial Statements

financial institutions, approximately \$1,618,000 was on deposit with the Massachusetts Municipal Depository Trust and the remainder was comprised principally of certificates of deposit at eight Massachusetts banks.

5. General Support Expenditures

The Corporation's General Support expenditures for the years ended June 30, 1990 and 1989 were as follows:

	1990	1989
Personnel costs	\$ 589,076	\$ 534,201
Professional expenses	16,134	37,357
Occupancy costs	122,111	115,754
Office services and supplies	53,455	54,106
Travel, meetings and conferences	30,365	28,000
Publications and advertising	12,425	19,611
Miscellaneous	19,367	16,892
Total expenditures	\$ 842,933	\$ 805,921

6. Restricted Cash - General Support

The Board of Directors voted to transfer \$500,000 and \$300,000 from the General Support Fund to the Restricted for Investment Programs Fund for the years ended June 30, 1990 and 1989, respectively. In addition, during 1989 the Directors voted to restrict a total of \$858,437 of General Support Funds for certain investment-related activities. There have been no subsequent changes to this restriction.

7. Office Facility Lease

The Corporation has a lease commitment for office space extending through April 1993. The agreement provides for base rent plus operating expenses, a five-year renewal option and tax escalation clauses. Minimum base rental commitments under this agreement are: 1991, \$105,100; 1992, \$112,400; and 1993, \$93,700. Rent expense for the years ended June 30, 1990 and 1989 approximated \$115,000 and \$109,500, respectively.

8. Employee Retirement Plan

The Corporation provides retirement benefits for substantially all employees through a simplified employee pension plan ("SEP"). The Corporation makes contributions to Individual Retirement Accounts ("IRA's") of employees in amounts equal to 10% of an employee's gross annual salary, not to exceed \$7,500 annually. Quarterly contributions are distributed to the eligible employee's IRA at Fidelity Investments. The Corporation has no fiduciary responsibility for these investments.

The Corporation's total payroll for 1990 and 1989 approximated \$457,000 and \$421,000, respectively. Contributions to the SEP were calculated using substantially all of total payroll. Pension expense for 1990 and 1989 approximated \$41,000 and \$39,000, respectively.

9. Management Fee Income

The Corporation has an agreement with the Pension Reserves Investment Trust ("PRIT"), a Massachusetts state employee pension trust, whereby the Corporation will provide investment advisory and management services relative to \$2 million of PRIT assets. The Corporation receives an annual management fee of \$60,000 for its services. In addition, the Corporation is entitled to receive 20% of all distributions resulting from the sale of investments after the original contribution to its investment account of \$2 million has been returned to PRIT. As of June 30, 1990, cumulative distributions returned to PRIT from its investment account totaled \$400,000, of which \$200,000 resulted from gains on an investment. This agreement expires on March 31, 1996.

MTDC Board of Directors and Staff

Board of Directors

PROFESSOR DAVID N. WORMLEY
Chairman
Head, Department of Mechanical
Engineering
Massachusetts Institute of Technology

DR. HORACE W. FURUMOTO
President
Candela Laser Corporation

JOSEPH S. IANDIORIO, ESQUIRE
Secretary
Patent Counsel

BENJAMIN F. KINCANNON
Consultant

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Secretary of Administration
and Finance

MARY E. MAKELA
- Vice President
Computer Corporation of America, Inc.

TIMOTHY J. McNEILL
Chairman
Wisdom Publications

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Retired President
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Treasurer
Executive Vice President
AICorp, Inc.

Officers and Staff

JOHN F. HODGMAN
President

ROBERT J. CROWLEY
Executive Vice President

MICHAEL E.A. O'MALLEY
Vice President

ELLEN M. KELLIHER
Investment Analyst

ROBERT J. CREEDEN
Investment Analyst

KAREN L. BUTTS
Controller

ESTHER E. LARSON
Administrative Manager

GAIL M. CORMIER
Administrative Assistant

MARIE B. PHANEUF
Public Information Officer

RUTH L. ROBER
Secretary

Representative MTDC Investments

While MTDC does not target specific industry groups, the following will provide a good illustration of the diversity of its investments:

Computer Software and Services

* Access Technology, Inc.	Natick
Aspen Technology, Inc.	Cambridge
* Business Research Corporation	Boston
CimTelligence Corporation	Lexington
COLLEGE COUNSEL, INC.	Natick
Digital Techniques, Inc.	Burlington
IMC Systems Group, Inc.	Waltham
* Interleaf, Inc.	Cambridge
Powersoft Corporation	Burlington

Computer Equipment and Peripherals

Augment Systems Inc.	Bedford
Graftel Systems, Inc.	Wilmington
* Display Components, Inc.	Westford
MicroTouch Systems, Inc.	Wilmington
Reflection Technology, Inc.	Waltham
SKY Computers, Inc.	Chelmsford
* Xylogics, Inc.	Bedford

Industrial Automation Systems & Equipment

* Aeonic Systems, Inc.	Billerica
Aseco Corporation	Marlboro
Icon Corporation	Woburn
IVS Incorporated	Concord
Kronos Incorporated	Waltham
Tytronics, Inc.	Waltham
* Vitronics Corporation	Newmarket, NH †
XRL, Inc.	Canton

Biomedical Products

Laser Engineering, Inc.	Milford
* AMDEV, Inc.	Danvers

Telecommunications and Data Communications

Chromatic Technologies, Inc.	Franklin
Fotec, Inc.	Boston
MultiLink, Inc.	Lynnfield
Voicetek Corporation	Chelmsford
* Zoom Telephonics, Inc.	Boston

Material Science and Related Systems

* Crystal Systems, Inc.	Salem
* Spire Corporation	Bedford

Advanced Defense Systems and Products

Millitech Corporation	So. Deerfield
* Pacer Systems, Inc.	Billerica

Environmental Management

* / * Cambridge Analytical Associates, Inc.	Boston
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* Exit Strategy Completed — Acquisition/Buyback

* Exit Strategy Completed — Initial Public Offering

† Previously Newburyport, MA

How to Apply

What the Applicant Does:

The applicant submits a comprehensive business plan. A well-thought-through plan reduces the need for questions and speeds the investment process, which oftentimes can be completed in eight to twelve weeks. The plan should address the following areas:

- characteristics and proprietary position of the company's products or services;
- present and future markets for those products or services;
- strategy for achieving and maintaining significant market share;
- company's financial history (if applicable) and projections, including balance sheets, profit and loss statements and cash flows;
- backgrounds, experience and financial commitments of principals and key managers;
- statement of the amount, timing and projected use of the capital required;
- statement of the projected growth in employment, or other positive economic impacts, which an MTDC investment would facilitate.

Proposals for financing should be addressed to:

John F. Hodgman, President
Massachusetts Technology Development Corporation (MTDC)
131 State Street, Boston, MA 02109
(617) 723-4920

What MTDC Does:

MTDC's professional staff negotiates with each company an investment whose terms are specifically tailored to meet the needs of the company, the interests of the co-investor and the goals of MTDC. Applications are invited not only from entrepreneurs who are principals in their own firms but also from members of the venture capital, banking, legal, auditing and academic professions who are familiar with business opportunities.

MTDC seeks to make all of its investments on a co-venture basis with compatible professional investors from the private sector. These may include venture capital firms, banks, SBICs, insurance companies, limited partnerships, informal investor networks, and individual and corporate investors with substantial net worths.

The size of MTDC's initial funding to an applicant is determined by the capital needs of the firm and the investment of the co-investor. Though investments can range up to a maximum of \$500,000, most are typically in the \$100,000 to \$250,000 range.

Investments are made as debt, equity or a combination of both. The debt portion of the financing is usually a long-term, unsecured, subordinated note with a partial moratorium on principal repayment. As a condition of providing such favorable debt financing, MTDC seeks an equity participation which is fair and reasonable when compared to the investment being made by the co-investor. Typical equity participation is through the purchase of the company's stock.

MTDC Procedures:

MTDC's Investment Analysts are assigned cases to review and monitor as appropriate under each of its programs. The cases are discussed at regular staff meetings, and those that qualify for investment are closely reviewed by MTDC's management for recommendation to the Board of Directors. Before an investment is approved by the Board, the management of the company will meet with Board Members, and a detailed investment report prepared by MTDC staff will be reviewed and analyzed.

No formal application is necessary, but the presentation of a written business plan is required before an in-depth review of the proposal can be undertaken. MTDC makes investments only in companies with the following characteristics:

- The company must be located, or agree to locate, in Massachusetts.
- The company's business must be technology based, and its principal products or services must be sufficiently innovative to provide a competitive advantage.
- The business expansion which MTDC's investment would help to finance must produce a significant growth in employment.
- The company must be able to demonstrate that it has been unable to secure from conventional sources sufficient capital on affordable terms to finance its expansion.
- The company must be able to show the prospect of a high rate of return on investment.

Legal Counsel
Palmer & Dodge
Boston, Massachusetts

Auditors
Deloitte & Touche
Boston, Massachusetts

Bankers
Shawmut Bank of Boston, N.A.
Boston, Massachusetts

Printers
Blanchard Press
Boston, Massachusetts

Massachusetts Technology Development Corporation

John F. Hodgman

President



131 State Street
Boston, Massachusetts 02109
Telephone (617) 723-4920
Fax (617) 723-5983

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